

WHAT IS CLAIMED IS:

1. An image processing method comprising:
 - an input step of inputting compressed image data;
 - an expansion step of expanding the compressed
 - 5 image data;
 - an adding step of adding second image property information as image property information of the image data which is expanded without containing any first image property information; and
 - 10 an output step of outputting the image data which contains the first or second image property information.
2. The method according to claim 1, further comprising:
 - 15 an encoding step of encoding image data, and wherein the encoding step comprises:
 - a segmentation step of segmenting image data, which contains the first image property information for each predetermined unit, into image data for respective
 - 20 predetermined units;
 - a compression step of compressing the segmented image data; and
 - a storage step of storing, when a size of the compressed image data is not more than a predetermined
 - 25 size, image data containing the first image property information in a storage device, and storing, when a size of the compressed image data is not less than the

predetermined size, image data excluding the first image property information in the storage device, and the input step includes a step of inputting the compressed image data stored in the storage device.

5 3. The method according to claim 1, further comprising a print step of printing the expanded image data.

4. The method according to claim 2, wherein the predetermined unit is a tile which forms an image for
10 one page.

5. The method according to claim 1, wherein the input step includes a step of inputting a packet which contains the compressed image data and a header.

6. The method according to claim 5, wherein the
15 adding step includes a step of determining, with reference to the header in the packet, whether or not the compressed image data in the packet contains the first image property information.

7. The method according to claim 1, wherein the
20 compression step includes a step of compressing the image data by JPEG, and compressing the first image property information by PackBits.

8. The method according to claim 5, wherein the second image property information is contained in
25 header information set for each predetermined unit of the image data.

9. The method according to claim 1, wherein the

second image property information is a representative value of image property information in the image data.

10. The method according to claim 2, further comprising:

5 a count step of counting a data size of image data stored in the storage device;

a determination step of determining whether or not the counted data size of the image data has exceeded a predetermined size; and

10 a stop step of stopping, when it is determined that the data size of the image data has exceeded the predetermined size, storage of the first image property information in the storage device.

11. The method according to claim 2, further comprising a flag output step of outputting a flag indicating a data size of the compressed image data has exceeded a predetermined size.

12. The method according to claim 2, wherein said method is used in an image processing apparatus which comprises an image property information storage device that stores second image property information, and further comprises:

a substitution step of setting new image property information as image property information of image data which is expanded without containing any first image property information upon printing the image data;

a designation step of designating one of an

operation mode that uses the second image property information stored in the image property information storage device as the new image property information and an operation mode that uses third image property information contained in header information set for
5 each predetermined unit of the image data as the new image property information; and

a print step of printing the expanded image data.

13. The method according to claim 2, further
10 comprising:

a designation step of designating second image property information used to set a page before coupling upon coupling image data of a plurality of pages into one page, and printing coupled image data;

15 a substitution step of setting the second image property information as image property information of the expanded image data upon printing the image data; and

a print step of printing the expanded image data.

20 14. The method according to claim 13, wherein the second image property information contains:

data type identification information used to identify a data type including a raster image and font data;

25 image type identification information used to identify one of text data and photo data; and

color identification information used to identify

one of grayscale data and color data.

15. The method according to claim 13, wherein the second image property information contains:

page information used to identify a page before
5 coupling upon printing image data of a plurality of pages on a single paper sheet;

image type identification information used to identify whether image data is continuous tone data or image data formed by area gradation; and

10 information used to identify an operation mode of print means.

16. An image processing apparatus comprising:

input means for inputting compressed image data;
expansion means for expanding the compressed

15 image data;

adding means for adding second image property information as image property information of the image data which is expanded without containing any first image property information; and

20 output means for outputting the image data which contains the first or second image property information.

17. A computer readable recording medium storing a program for making a computer execute:

25 an input procedure for inputting compressed image data;

an expansion procedure for expanding the

compressed image data;

an adding procedure for adding second image
property information as image property information of
the image data which is expanded without containing any
5 first image property information; and

an output procedure for outputting the image data
which contains the first or second image property
information.